

P. R. FLAMM.

VALVE.

APPLICATION FILED JAN. 30, 1911.

1,036,479.

Patented Aug. 20, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

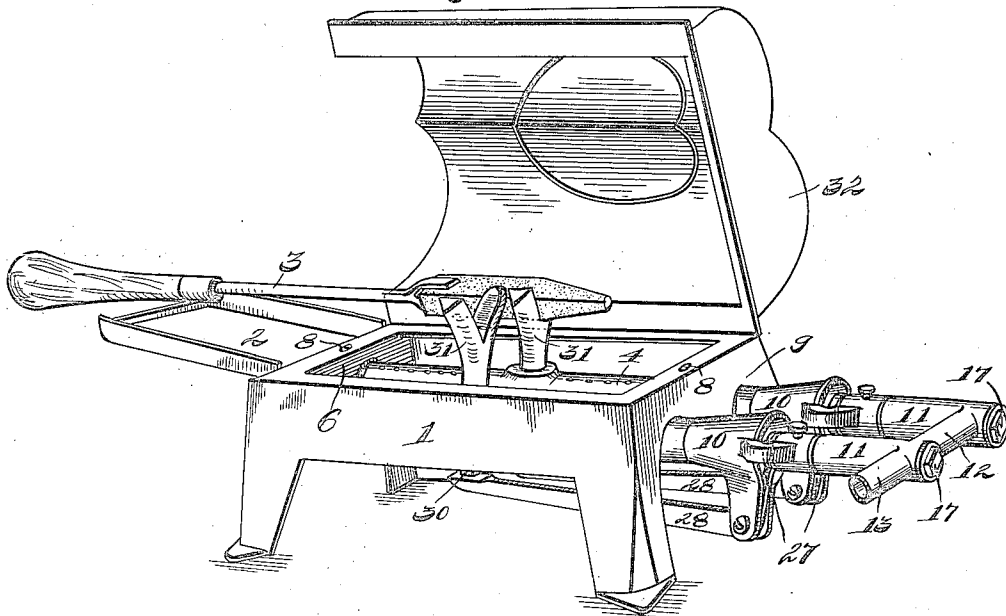
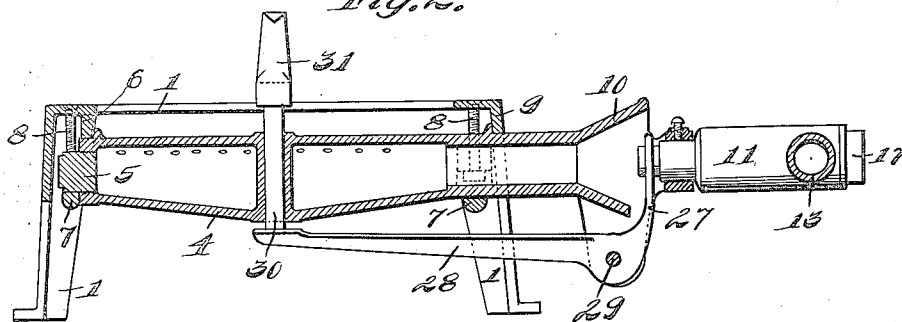


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

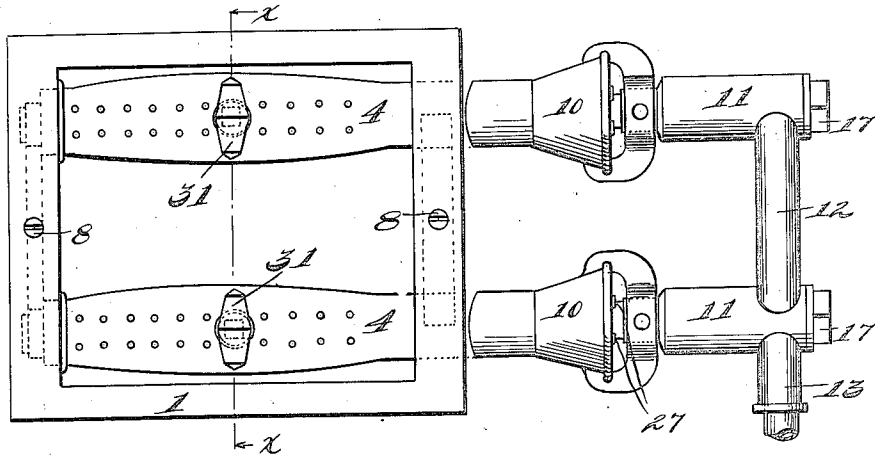


Fig. 4.

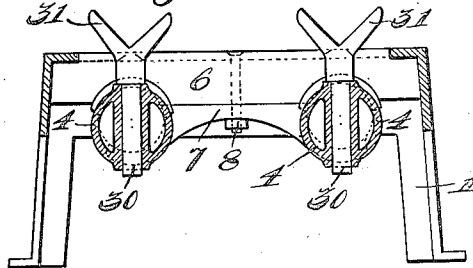


Fig. 6.

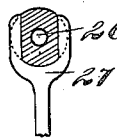
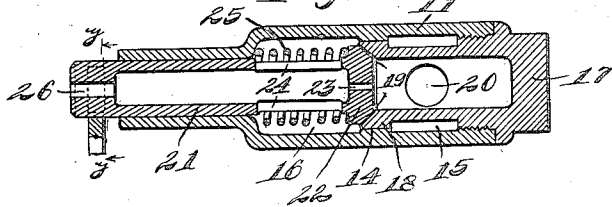


Fig. 5.



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UNITED STATES PATENT OFFICE.

PAUL R. FLAMM, OF NORTH CHICAGO, ILLINOIS.

VALVE.

1,036,479.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed January 30, 1911. Serial No. 605,522.

To all whom it may concern:

Be it known that I, PAUL R. FLAMM, a citizen of the United States, and a resident of the city of North Chicago, county of Lake, and State of Illinois, have invented certain new and useful Improvements in Valves, of which the following is a specification.

My invention relates to improvements in valves especially adapted for use in mechanics' furnaces and has for its object the provision of such a valve of improved construction and operation.

The invention consists in the combination and arrangements of parts hereinafter described and claimed.

My invention will be best understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a perspective view of a mechanic's furnace equipped with a valve embodying my invention, Fig. 2, a section through one of the burners of said furnace, Fig. 3, a top plan view of the furnace with the cover removed, Fig. 4, a section taken on line *x-x* of Fig. 3, Fig. 5, an enlarged section through one of the supply casings employed in the furnace, and Fig. 6, a section taken on line *y-y* of Fig. 5.

The preferred form of construction as illustrated in the drawing comprises a suitable frame or standard 1 having a shelf 2 at one side for the support of soldering irons 3 as indicated. Two similar tubular burners 4 are mounted in frame 1, each of said burners being closed at its inner end by a plug 5 projecting somewhat therefrom. The burners are supported at their inner ends by means of a flange 6 having recesses adapted to receive the ends of the burners and a yoke 7 adapted to engage under the plugs 5 and be secured in clamping position by means of a screw 8. The outer end of each of the burners is secured in position in substantially the same manner in recesses provided in a flange 9 and by a yoke 7 and screw 8 as indicated. At its outer end each of the burners 4 is provided with a flaring mixing chamber 10 and gas is supplied thereto through a casing 11 projecting into mixing chamber 10 and connected at their outer ends by means of a pipe 12. A pipe 13 communicating with a main supply gas chamber 15 in one of the casings 11 serves to supply both of said casings with gas.

Each of the tubular casings 11 is provided with an interior cylindrical sealing surface 14 lying between the main supply gas chamber 15 therein and a supplemental gas chamber 16 as shown in Fig. 5. A threaded plug 17 is screwed into the end of casing 11 and is provided with a cylindrical sealing surface 18 cooperating with surface 14 to complete the separation of chambers 15 and 16. At its inner end plug 17 is provided with a valve seat 19 and in its lateral walls with radial openings 20 leading to chamber 15. A tubular valve 21 is slidably mounted in each of the casings 11 and provided at one end with a valve head 22 having a minute perforation 23 therethrough and adapted to seat on valve seat 19. Valve 21 is provided with elongated radial openings 24 communicating with chamber 16 and is normally held to its seat by means of a compression spring 25 as shown. At its inner end valve member 21 is provided with a comparatively large perforation or opening 26 and with side notches adapted to receive a fork 27 on the end of one arm of a bell-crank lever 28 which is pivoted to the chamber 10 at 29. The inner end of each of the bell-cranks 28 rests against the bottom of a vertically slidable member 30 mounted in the corresponding burner 4 and carrying a Y-shaped fork 31 at its upper end. A suitable cover 32 is also provided for casing 1.

In use the gas is provided to the furnace through pipe 13, said gas passing freely into said chambers 15 and thence slowly through perforations 23 to the responsive burners, the supply of gas thus provided being merely sufficient to support a pilot light in each of said burners. When a soldering iron 3 is placed upon either of the members 31, the same is depressed and bell-crank 28 operated to withdraw valve head 22 from its seat and permit a free flow of gas from chamber 15 to chamber 16 and thence through tubular valve member 21 to the corresponding burner, thus supplying the heat necessary to heat said soldering irons.

The construction disclosed will be found highly efficient in operation and economical to manufacture.

While I have illustrated and described the preferred construction for carrying my invention into effect this may be varied somewhat without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construc-

tion as set forth but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

A valve for a mechanic's furnace comprising a casing 11 having an interior cylindrical sealing surface 14; a hollow threaded plug 17 closing the outer end of said casing and provided with a cylindrical sealing surface 18 contacting with said first mentioned surface 14 and dividing the interior of the casing 11 into two chambers 15 and 16, there being a valve seat 19 formed at the inner end of said plug 17 and an opening 20 formed in the side of said plug 17, said opening 20 establishing communication between the interior of said plug 17 and with

said chamber 15; a tubular valve 21 provided with a valve head 22 adapted to seat on said valve seat 19, there being a perforation 23 in said valve head 22 and openings 24 and 26 in its side and end respectively, the openings 24 in its side establishing communication between the interior of said tubular valve 21 and the other said chamber 16; and a spring 25 arranged to hold said valve head 22 to said seat 19, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL R. FLAMM.

Witnesses:

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ALBERT MECHAM.